

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

[0033] The process of fabricating the fuel cell described above is now described in the following with reference to Figures 4(a) to 4(f) 4(i), and Figure 5.

[0037] Referring to Figure 6, gel 20 consisting of high polymer solid electrolytic material is filled into the interior of the outer mold frame 12 excluding the parts that will become the gas passages 4 to 7, and is thermally processed so as to expel the solvent. This yields the electrolyte layer 2 and tubular casing 1 at the same time as shown in Figure 1. The gel 20 may comprise 20% polybenzimidazole (PBI) and 80% solvent such as dimethylacetamide (DMAC) as disclosed in United States Patent No. 5,535,436 5,525,436. When the solvent is thermally removed, the electrolyte layer 2 and tubular casing 1 are reduced to one fifth of the original size, as opposed to the gel 20 which remains relatively unchanged in size. Therefore, it is preferable to use a mold which is conformal to the outer mold frame 12 and gas diffusion electrodes 3 but substantially higher than them (as indicated by the imaginary lines in Figure 6), and fill the gel 20 while applying pressure from above and conducting the thermal process. It is also possible to repeat the step of filling the gel 20 and conducting the thermal process a number of times to build the electrolyte layer 2 and tubular casing 1 for the height of a single outer mold frame 12. One Once the fuel cell is built to a prescribed height, the base plate 11 and outer mold frames 12 are removed, and the leads 8 and 9 are attached to complete the fuel cell.

[0043] Figure 9(a) is a sectional view similar to Figure 2 showing a third embodiment of the present invention given as a tubular fuel cell, Figure 9(b) is a vertical

sectional view of the tubular fuel cell taken along line IXb-IXb of Figure 9(a), and Figure 9(c) is a horizontal sectional view of the tubular fuel cell taken along line IXc-IXc of Figure 9(a). In this embodiment, the tubular casing 1 defines four parallel passages 28 to 29 31 extending in the axial direction, and the upper end of the casing 34 1 is closed. The gas passages 28 and 29 are communicated with each other at the closed end so as to jointly form the fuel gas passage, and the passages 30 and 31 are communicated with each other at the closed end so as to jointly form the oxidizing gas passage. In other words, the fuel gas passage 28 and 29 and oxidizer gas passage 30 and 31 are bent in their intermediate parts so as to define U-shaped passages. Therefore, the structure for supplying and recovering the fuel gas and oxidizer gas can be provided on a same end of the casing. This embodiment is otherwise similar to the first embodiment.